

ABORTION SHEET

CAMPYLOBACTERIOSIS

● ● Sheep and goats



www.cepcq.com



Source : Melissa Brower, CDC

**CAMPYLOBACTERIOSIS IS A BACTERIAL DISEASE PRESENT ALL OVER THE WORLD.
IT CAUSES ABORTION IN SHEEP, AND MORE RARELY IN GOATS.**

CAMPYLOBACTER JEJUNI IS ALSO ONE OF THE MOST COMMON BACTERIA INVOLVED IN FOODBORNE INFECTIONS IN HUMANS.

AGENTS INVOLVED ● ●

In sheep, campylobacteriosis is caused by *Campylobacter fetus ssp fetus* and *Campylobacter jejuni*. In Canada, *C. jejuni* is most commonly found in abortions in sheep. This disease is rare in goats.

TRANSMISSION ● ●

Campylobacter can be found in the intestines and gallbladder of many animals, including sheep, cattle, birds and dogs. Animals become infected by ingesting food or water contaminated with feces, vaginal secretions, placentas or aborted fetuses that harbor the bacteria. Ewes abort 8 to 60 days after ingestion of the bacteria. The other animals in the herd represent a major route of infection for ewes. Also, dogs that ingest contaminated material may act as vectors of the infection.

CLINICAL SIGNS ● ●

In general, campylobacteriosis results in late-term abortion or the birth of dead or weak lambs. Ewes can be affected to various degrees, ranging from simple post-abortion vaginal discharge to death if fetuses are retained in the uterus. Upon examination, their placenta can be oedematous and characteristic lesions can be observed in their liver (see photo below). Exposed animals develop natural immunity after an outbreak and are then protected for a few years.

DIAGNOSTIC ● ●

Necropsy of the aborted fetuses and the placentas, combined with bacterial culture of the harvested specimens, is essential to confirm the diagnosis.

TREATMENT ● ●

During an outbreak of *Campylobacter* abortions, treatment with antibiotics is required. Tetracycline is the most commonly used antibiotic.

WARNING : Cases of infection with *Campylobacter* resistant to tetracyclines are increasing. It is therefore important to check the effectiveness of this treatment in the laboratory by an antibiogram.



Source : John Plant

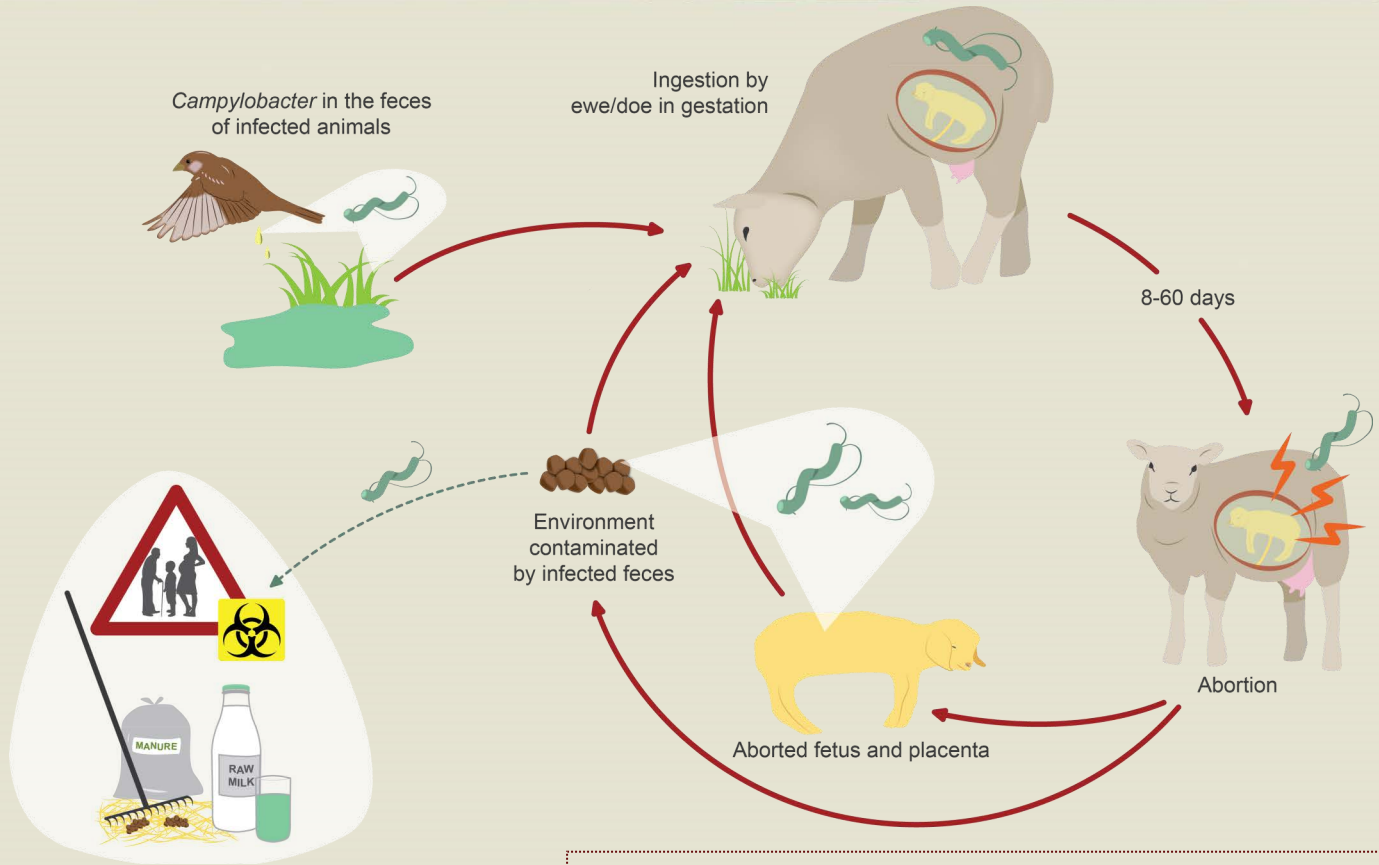


Source : Dr. John M. King, Cornell University College of Veterinary Medicine

FACTS ABOUT THE BACTERIUM CAUSING CAMPYLOBACTERIOSIS :

- ◆ It cannot survive in water for more than a month at a 4°C temperature and is not heat-resistant;
- ◆ It is sensitive to several disinfectants, including 1 % bleach and 70 % ethanol.

Schematic of contamination by *Campylobacter*



PREVENTION ●●

A vaccine containing *C. fetus* and *C. jejuni* antigens is currently available in Canada. Response to the vaccine depends on the match between the serotypes present in the field, which may vary, and those used by the vaccine manufacturer. Vaccination should begin before breeding and a booster should be given 2 to 3 months later.

CAUTION: Manufacturer's recommendations should be followed with respect to the dosage for the first vaccination, the first booster, and the annual booster. The instructions for the product storage should also be respected.



WARNING, ZONOSIS!

CAMPYLOBACTERIOSIS IS ZONOTIC.

Symptoms include abdominal cramps, vomiting, fever, diarrhea, headache, and muscle or joint pain.

Humans can become infected as a result of :

- ◆ Consumption of unpasteurized milk and by-products;
- ◆ Consumption of contaminated or untreated water;
- ◆ Consumption of undercooked meat;
- ◆ Consumption of food contaminated during preparation;
- ◆ Handling placentas, aborted fetuses or contaminated animals;
- ◆ Contact with material contaminated with feces.

PREVENTION OF TRANSMISSION TO HUMANS ●●

- ◆ Proper handling and destruction of parturition (or abortion) products;
- ◆ Limit visitor access to facilities during parturition;
- ◆ Prohibit consumption of food and beverages on the farm;
- ◆ Avoid putting your hands in your mouth when working with the flock.

OTHER HYGIENE MEASURES :

- ◆ Ideal sanitary conditions in facilities;
- ◆ Avoid contamination of food with feces;
- ◆ Isolate females that have aborted;
- ◆ Dispose of placentas and aborted fetuses as soon as possible.

Cultivons l'avenir 2
Une initiative fédérale-provinciale-territoriale

Growing Forward 2 
A federal-provincial-territorial initiative

Canada 

Québec 

Translation: Saskatchewan Sheep Development Board thanks to funding from Growing Forward 2, a Canada and Government of Saskatchewan initiative. I Thank you to Ms. Corlena Patterson of the Canadian Sheep Federation for the review.